FISH AND SHELLFISH PURCHASES BY PUBLIC SCHOOLS WITH FOOD SERVICES, 1957-58

By William S. Hoofnagle* and Kenneth E. Anderson*

The U. S. Bureau of Commercial Fisheries has long recognized that school lunchrooms represent one of the large potential outlets for fishery products. A substantial segment of the consumer educational activities of the Bureau has been directed toward the School Lunch Program. Fish-cookery demonstrations for supervisory school-lunch personnel are constantly and systematically being conducted by Bureau home economists and marketing specialists in all sections of the country. These efforts and effective industry follow-up have, in large part, contributed to increasing use of fishery products by schools for lunch programs.

--Editor's Note

BACKGROUND

The outlet for food in schools is an important segment of the away-from-home institutional eating market. Further expansion is likely to occur in this outlet as school enrollments continue to rise and as new schools are built with modern cooking and cafeteria facilities.

Through the school-lunch outlet, a medium is provided whereby new or improved foods may be introduced on a nationwide basis. In addition, children participating in

lunch programs are exposed to new foods or familiar foods in new form, learning at the same time how to select well-balanced meals and the importance of good eating habits.

School food service is widely recognized by educators and school administrators as an important part of the school program. Today, there are approximately 60,000 of the 106,000 public schools in the United States offering some type of food service, ranging from a complete plate lunch to à la carte service only. Somewhat over 54,000 of these public schools participate in the National School Lunch Program. This is a program, jointly administered by the U. S. De-



Fig. 1 - School lunchrooms are a large potential outlet for fishery products.

partment of Agriculture and State educational agencies, which provides food assistance to schools operating a nonprofit food service for children. Schools participating in the program receive food assistance in the form of cash and commodity donations to help them serve well-balanced, low-cost noonday lunches. To be eligible to receive this assistance, schools must agree to operate the lunch on a nonprofit basis; serve meals that meet specified nutritional standards; and serve free or at a reduced price to children unable to pay.

Deliveries of all purchased and donated foods to a national probability sample of 500 public schools were recorded over a 12-month period at 2-month intervals, *Agricultural Economist, Distribution Programs Research Section, Market Development Branch, Agricultural Marketing Service, U. S. Department of Agriculture.

beginning with July 1957 and ending with June 1958. The sample was divided into approximately 6 equal subgroups of schools, with invoices of deliveries taken in a rotating pattern to provide coverage in all months of the year so as to overcome seasonal factors. The value of deliveries was determined by using actual prices paid for food purchased by the sample schools and current market wholesale prices for donated foods. Information on the delivery invoices from the sample schools was tabulated for a 12-month period and projected to United States totals for deliveries and value on an annual basis. The Governments Division of the Bureau of the Census, under a cooperative arrangement with the Department of Agriculture, collected and tabulated the data reported herein.

TOTAL SCHOOL MARKET

The total value of foods, both purchased and donated, delivered to approximately 60,000 public elementary and secondary schools having a food service (either plate or a la carte) between July 1957 and June 1958 amounted to \$597 million, or \$28 per capita, based on average daily attendance figures of slightly over 21 million pupils. About \$505 million, or 85 percent of the total value of food, was purchased



Fig. 2 - A fish-cookery demonstration by a U. S. Bureau of Commercial Fisheries home economist to school-lunch personnel, Charles Town, W. Va.

by the schools from local sources. The remaining portion, or approximately 15 percent of the total dollar value of commodities, comprised those donated directly by the Government from purchases made especially for school lunch or from stocks acquired under various price-stabilization programs.

Schools participating in the National School Lunch Program received 94 percent of the total value of foods delivered to public schools having a feeding service during the survey period. In the case of directly-donated foods, almost 98 percent of the total value of those items went to schools operating under the National School Lunch Program.

TOTAL AND PER CAPITA QUANTITIES OF FISH AND SHELLFISH

During the survey period, July 1957 through June 1958, almost 28 million pounds of fish and shellfish were purchased by public schools having a food service. Based on an average daily attendance figure of a little over 21 million pupils in this category of public schools, about 1.3 pounds of fish and shellfish per child were available for consumption.

Of the total quantity of fish purchased by this market outlet, almost 15 million pounds were in fresh or frozen form. From a volume standpoint, fish sticks were the most important item in the fresh and frozen category, accounting for almost 6 million pounds. Fish fillets accounted for slightly over 4 million pounds and fresh whole fish about 1.5 million pounds, with the balance made up of other fresh or frozen fish items. On a per capita basis, 0.7 pound of fresh and frozen fish and fish products combined were available for consumption in the schools serving food.

Slightly over 13 million pounds of canned fish moved into the school market between July 1957 and June 1958. Tuna was by far the most important canned fish item, accounting for almost 8 million pounds. It was followed by salmon, which represented slightly over 4 million pounds of the total for canned fish items. Bonito, sardines, and other canned fish items accounted for the balance of the volume of deliveries in this category.

Shellfish was a relatively minor volume item in the school lunch program. Somewhat less than 200,000 pounds of shellfish items were delivered to these schools during the survey period. This may be attributed in part to the relatively higher cost of many of the items making up the shellfish group.

TOTAL AND PER CAPITA VALUE OF FISH AND SHELLFISH

The wholesale value of all fish and shellfish purchased by public schools with food services during the survey period amounted to almost \$13 million, or 60 cents per child, based on average daily attendance. From the standpoint of monetary value, canned fish items accounted for about \$7 million, or 32 cents per child. The value of tuna fish deliveries came to almost \$4 million, salmon to somewhat over \$2 million, and the balance was for bonito, sardines, and other canned items.

In the fresh and frozen category, the wholesale value of all items amounted to \$6 million, with fish sticks and fish fillets accounting for slightly over \$4 million of the total. Fresh whole fish was relatively the least expensive item in this category. Results of the survey revealed that fish and fish products accounted for 2 cents out of each school food dollar.

PURCHASES AND VALUE OF FISH AND SHELLFISH BY TYPE OF LUNCH SERVICE

Information on purchases and value of fish as well as other foods was collected by two categories of schools—those public schools participating in the National School Lunch Program and for all other public schools providing food services but not participating in the Program. The per capita quantity of fish and shellfish delivered to public schools participating in the National School Lunch Program was 1.4 pounds, compared with 0.8 pound in all other schools having a food service. The per capita value of fish and shellfish available for consumption in participating schools was 62

cents, compared with 38 cents in schools not participating in the National School Lunch Program.

SOURCE OF SUPPLY AND BUYING PRACTICES

To evaluate a market outlet, information must be obtained on its usual sources of supply and on buying practices followed in filling needed food requirements. In the survey, school food buyers were asked where they bought their fish supply as well as other individual food items. Over 99 percent of the expenditures made for fish by school food buyers were made at the wholesale level. Another interesting point with regard to the source of supply was the substantial expenditure made for fish through orders given to route salesmen. Small schools, that is, those having an enrollment of less than 300 pupils, utilize very extensively the route salemen in placing their orders for fish and fish products. Approximately one-fifth of the expenditures for fish products were made through competitive bids by obtaining price quotations from two or more suppliers before placing orders.

PER CAPITA USE OF FISH IN RELATION TO SCHOOL AND COMMUNITY CHARACTERISTICS

The per capita use of fresh, frozen, and canned fish was greater in elementary than in secondary schools. In large schools, those having a pupil enrollment of 300 or more, the rate of use of fresh or frozen fish exceeded that found in smaller ones; however, the situation was reversed in the case of canned products. Per capita use of fresh or frozen fish in schools serving areas where average family income was under \$4,000 was twice as large as that in schools serving areas where income was \$4,000 or larger. In contrast, the per capita use of canned fish items, namely tuna and salmon which are relatively expensive fish products, was considerably less in schools serving low-income areas as compared with schools located in neighborhoods where family income was \$4,000 or larger. A slightly higher per capita use of fish was found in schools located in communities of 2,500 people or less as compared with those located in more heavily populated areas.



THE INSTITUTIONAL MARKET

In 1957 Americans ate more than 80 million meals per day (at an annual cost of \$17.5 billion) in mass-feeding establishments of one type or another. According to a recent report in a leading frozen food journal, one-fourth of the 1957 American food dollar went for meals eaten outside of the home.

About 73 percent of the meals served each day by institutions were handled by restaurants, cafeterias, lunch counters, refreshment stands, hotels, hospitals, and industrial cafeterias. The rest were served by schools, transportation systems, drug stores, penal institutions, etc.

It is expected that by 1975 the annual volume of the institutional food market will approximate \$35 billion.

In 1957, the some 541,000 mass-feeding establishments in the United States spent about \$7.5 billion for food purchases. Of this amount, 35 percent went for meats, 12.5 percent for fruits and vegetables, 9.5 percent for fish and shellfish, and 9 percent for poultry. It is anticipated that by 1975 institutions will be spending some \$18 billion for food purchases.